

### **REMARKS**

Applicant wishes to thank the Examiner for his review of the present application. Applicant has amended claims 1, 3, 8 and 12. Claims 1-4, 8-10, 12-31, and 48-55 are pending.

#### **35 U.S.C. §103(a)**

Claims 1-4, 8-10, 12-31, and 48-55 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jiang et al. (U.S. patent no. 6,442,287), hereinafter referred to as “Jiang,” in view of Wheeler et al (U.S. patent no. 5,200,993), hereinafter referred to as “Wheeler.” Amended claim 1 includes deriving quantitative information on trabecular bone structure from an x-ray image. The quantitative information is selected from the following: trabecular thickness and two-dimensional or three-dimensional spaces between trabeculae.

The subject office action alleges that col. 17, lines 21-31 of Jiang discloses trabecular thickness and two-dimensional or three-dimensional spaces between trabeculae. This section of Jiang discloses a system that analyzes texture orientation and the Minkowski dimension (see Jiang at col. 17, lines 21-31). The Minkowski dimension yields directional dimensions that can be used to characterize textural anisotropy of an image (see Jiang at col. 3, lines 31-35). Analyzing texture orientation, or determining the Minkowski dimension, is very different from claim 1, which includes deriving from an x-ray image trabecular thickness, or two-dimensional or three-dimensional spaces between trabeculae.

Wheeler fails to satisfy the deficiencies of Jiang. Wheeler is directed at an imaging system over a network, and fails to teach or suggest deriving from an x-ray image trabecular thickness, or two-dimensional or three-dimensional spaces between trabeculae, as required by claim 1.

Since neither Jiang or Wheeler teach or suggest deriving quantitative information, the quantitative information selected from the group consisting of trabecular thickness and two-dimensional or three-dimensional spaces between trabeculae, as required by amended claim 1, claim 1 as amended is allowable over Jiang in view of Wheeler.

Claims 2-4, 8-10, 12-31, and 48-55 depend from amended claim 1, and are allowable for the same reasons as amended claim 1, and add further limitations.

Additionally, claim 17 includes the following x-ray parameters: x-ray tube voltage, x-ray energy, x-ray tube current, object-film distance, x-ray collimation, focal spot size, exposure time, film sensitivity, filter technique, and film-focus distance. The subject office action suggests that column 9, lines 20-28 of the Jiang reference renders claim 17 obvious, but this section of Jiang does not mention any of the parameters contained in amended claim 17. Instead, lines 20-28 of Jiang mentions only ROI and spatial resolution. Wheeler does not satisfy the deficiencies of Jiang, as it fails to disclose the x-ray parameters taught by amended claim 17. Therefore, claim 17 is not obvious in view of Jiang and Wheeler for this additional reason.

Furthermore, claims 18-20 require an internal standard by which trabecular bone structure can be measured. The subject office action suggests that “BMD is the claimed ‘internal standard’” as taught by column 7, line 10-15 of Jiang. However, the section of Jiang cited by the office action (column 7, line 10-15) discusses only the storage of BMD data; it does not disclose or suggest the use of an internal standard. Nor does Wheeler satisfy the deficiencies of Jiang, as it fails to disclose an internal standard. As such, claims 18-20 are not obvious in view of Jiang and Wheeler for this additional reason.

Also, claims 22-26 include generating a diagnostic report based on the quantitative information. The office action suggests the tables found in column 10 of Jiang are diagnostic reports. However, Jiang discloses that these tables present “descriptive statistics” reflecting experimental results involving a large number of bone specimens. *See* Jiang, col. 7, line 49 – col. 11, line 13. As such, Jiang neither teaches or suggests generation of a diagnostic report. Wheeler does not satisfy the deficiencies of Jiang, as nowhere does Wheeler disclose a diagnostic report. Therefore, claims 22-26 are not obvious in view of Jiang and Wheeler for these additional reasons.

Conclusion

It is believed that the application is now in order for allowance and Applicant respectfully requests that a notice of allowance be issued.

Applicant believes that no extension of time is required; however, this conditional petition is being made to provide for the possibility that the applicant has inadvertently overlooked the need for an extension of time. If any additional fees are required for the timely consideration of this application, please charge deposit account number 19-4972.

The Examiner is requested to telephone the undersigned if any matters remain outstanding so that they may be resolved expeditiously.

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Respectfully submitted,

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